

99-11-2/5

Development of Water Resources in the RSFSR (40th Anniversary of the Great October Revolution)

of 39 cu m/sec, and the Stavropol'skiy canal, 219 km long, with a flow capacity of 13 cu m/sec. The total length of major canals will total 765 km, and distribution ditches 3,100 km, of which 544 km are to be built during the 1st phase of construction. In 1957, construction of the Donskiy canal, 112 km long, with a flow capacity of 250 cu m/sec servicing the Tsimlyanskiy reservoir, was completed. Operation of the Donskiy canal will enable to supply water for the Bogayevskiy and Sadkovskiy irrigation systems (60,000 hectares) and the Veselovskiy reservoir (34,400 hectares), besides the already serviced 67,100 hectares of the Nizhne-Donskiy irrigation system. By operating the main Donskiy canal a total of 160,000 hectares will be put under irrigation by the end of the 5-year plan. At present, the Terek-Kumskiy canal, 148 km long, with a flow capacity 100 cu m/sec, is under construction. This canal will supply water for 1.5 million hectares of the black earth territories and irrigation water for 150,000 hectares of the Nogayskaya Step'. Beginning August 1957, the Terek-Kumskiy canal conveys water to the 82 km distant Sukhaya Kuma reservoir to irrigate 260,000 hectares of the Nogay-

Card 3/5

99-11-2/5

Development of Water Resources in the RSFSR (40th Anniversary of the Great October Revolution)

skaya Step'. Besides, during the first year of the 6-year plan, Terkumvodstroy started construction of the Naursko-Shelkovskiy irrigation system to supply water for 300,000 hectares of land and to irrigate 35,400 hectares. Completion of construction of the Kargalinskiy hydro-power plant in 1956 increased the area under irrigation from 40,000 to 100,000 hectares. In the same year Stalingradvodstroy finished construction of the Varvarovskiy 8,100 hectares irrigation system. The Volgo-Akhtubinskiy lowlands and the Generalovskiy irrigation systems to supply 13,300 hectares and the Kuban, Petrovsko-Anastasiyevskiy and Afipskiy Irrigation Systems by which the acreage under irrigation will be increased from 15,500 to 21,000 hectares, are under construction. Although the drained area has increased 2.8 times by 1956 as compared with 1917, there are still millions of hectares of swamps and boggy soils in the USSR which have low yields. Large areas of the Siberian, north-western and far eastern territories could produce dairy products, meat and vegetables after being drained. Cattle pastures can be greatly improved by supply-

Card 4/5

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Card 5/5

POPOV, M.N., inzh.

Elements in the theory of the operation of a spring-mounted hydraulic shock-absorbing apparatus in the capacity of a shock absorber for the automatic coupling of a mine car. Izv. vys. ucheb. zav.; gor. zhur. 6 no.8:90-93 '63.

(MIRA 16:10)

1. Permskiy-politekhnikheskiy institut. Rekomendovana kafedroy pod"yemno-transportnykh gornykh mashin.

KLIMOV, P.K.; POPOV, M.M.; SOLOV'YEV, N.A.

Motor function of the gall bladder in intravenous cholegraphy.  
Trudy Inst. fiziol. 9:82-86 '60. (MIRA 14:3)

1. Laboratoriya nefrofiziologicheskikh problem (zaveduyushchiy -  
K.M.Bykov [deceased]) i laboratoriya fiziologii pishchevareniya  
(zaveduyushchiy - A.V.Solov'yev) Instituta fiziologii im.I.P.Pavlova.  
(GALL BLADDER...RADIOGRAPHY)

KLIMOV, P.K. & ~~POPOV~~, M.M.

Motor changes in the gastrointestinal tract following traumatic damage to the osteoarticular apparatus (radiographic investigation).  
Trudy Inst. fiziol. 9:227-231 '60. (MIRA 14:3)

1. Laboratoriya nevrofiziologicheskikh problem (zaveduyushchiy - K.M.Bykov) Instituta fiziologii im. I.P.Pavlova.  
(~~EXTREMITIES~~ (ANATOMY)---WOUNDS AND INJURIES)  
(DIGESTIVE ORGANS---RADIOGRAPHY)

KLIMOV, P.K.; POPOV, M.M.; SOLOV'YEV, N.A.

Motor function of the gall bladder in acute radiation sickness  
(radiographic investigation). Trudy Inst. fiziol. 9:232-236 '60.  
(MIRA 14:3)

1. Laboratoriya nevrofiziologicheskikh problem (zaveduyushchiy -  
K.M.Bykov [deceased]) i Laboratoriya fiziologii pishchevareniya  
(zaveduyushchiy - A.V.Solov'yev) Instituta fiziologii im. I.P.Pavlova.  
(GALL BLADDER--RADIOGRAPHY)  
(RADIATION SICKNESS)

POPOV, M.M.; KLIMOV, P.K.

Use of angiocardiology in physiological experiments. Biul. eksp.  
biol. i med. 50 no.12:108-110 D '60. (MIRA 14:1)

1. Iz laboratorii neyrofiziologicheskikh problem (zav. - akademik  
K.M.Bykov [deceased]) Instituta fiziologii imeni I.P.Pavlova Akademii  
nauk SSSR V.V. Parinym.

(ANGIOCARDIOGRAPHY)

POPOV, M.M.; KLIMOV, P.K.

X-ray kymography as a method for the physiological study of the gastrointestinal tract. Biul. eksp. biol. i med. 3[1.e.53] no.3: 120-123 Mr '62. (MIRA 15:4)

1. Iz laboratorii neyrofiziologicheskikh problem (zav. - akademik K.M.Bykov [deceased]) Instituta fiziologii imeni I.P.Pavlova (dir. - akademik K.M.Bykov [deceased]) AN SSSR, Moskva. Predstavlena akademikom V.N.Chernigovskim.  
(KYMGRAPH) (ALIMENTARY CANAL--RADIOGRAPHY)



L 11096-66 EWT(1)/REC(k)-2/FBD/ENP(k)/T IJP(c) WG  
ACC NR: AP6026983 SOURCE CODE: UR/0051/66/021/002/0258/0260

AUTHOR: Kaliteyevskiy, N. I.; Popov, M. M.; Rymarchuk, Yu. A.; Tolchinskaya, T. B.; Chayka, M. P.

ORG: none

TITLE: Gas laser generation power in nearly confocal resonators

SOURCE: Optika i spektroskopiya, v. 21, no. 2; 1966, 258-260

TOPIC TAGS: gas laser, neon helium laser, infrared laser, LASER ENERGY, NEON, HELIUM

ABSTRACT: A qualitative explanation of the mechanism responsible for the appearance of the maximum of power generation in a nearly confocal resonator of a gas laser is offered. The generation of a neon-helium laser at  $\lambda = 0.63$  and  $1.15 \mu$  was studied. It is shown that because of a decrease in the figure of merit in the region of instability of the generation, a minimum should appear on the curve representing the generation power as a function of  $L$  ( $L$  being the distance between the mirrors). The width of the minimum is equal to the width of the instability region traversed, and is determined by the difference in the mirror radii  $\Delta R$ . In a study of a resonator with mirrors whose radii  $R_1 = R_2 = 250$  cm within  $0.4$  cm, minima were obtained whose width was greater than  $0.4$  cm and was varied by shifting the discharge tube along the resonator axis and replacing the tube by another. These experimental data were attributed to the distorting influence of the exit windows of the discharge tube. It is shown

Card 1/2

UDC: 621.375.9:535 (206.3)

L 34409-66 EWT(1) IJP(c) WW/GG

ACC NR: AP6015436

SOURCE CODE: UR/0051/66/020/005/0905/0908

AUTHOR: Buldyrev, V. S.; Popov, M. M.

ORG: none

TITLE: Use of radial method for the calculation of the normal modes of multimirror resonators

SOURCE: Optika i spektroskopiya, v. 20, no. 5, 1966, 905-908

TOPIC TAGS: vibration frequency, resonator, light reflection

ABSTRACT: It is shown that the normal modes of vibrations concentrated around the axis of a multimirror resonator may be found by using a radial method applied to the family of rays which arises to a first approximation near the axis of the resonator as a result of multiple reflections. A two-dimensional and a three-dimensional resonator are discussed, and the theory is illustrated with two examples, one involving a triangular resonator; the other a parallelogram. Formulas for the natural modes are derived in both cases. Authors are grateful to E. Ye. Fradkin for the proposed topic and helpful discussions. Orig. art. has: 1 figure and 7 formulas.

SUB CODE: 20/ SUBM DATE: 02Jul65/ ORIG REF: 001/ OTH REF: 001

Card 1/1

UDC: 621.375.9:535.001.1

SVALOV, S.I.; IVANOV, V.G., inzh.; POPOV, M.M., inzh.

Improvement of ShRPC-62 and BRPS-62 equipment. Avtom., telex. i  
svyaz' 8 no.12:24-28 D '64. (MIRA 18:1)

1. Nachal'nik dorozhnoy radiolaboratorii Sverdlovskoy dorogi (for  
Svalov). 2. Dorozhnaya radiolaboratoriya Sverdlovskoy dorogi (for  
Ivanov, Popov).

POPOV, M.M., prof., otv. red.; GOLIKOVA, T.M., dots., red.; SABUROV,  
G.Ye., dots., red.; KOLOVKOVA, Ye., tekhn. red.

[Congenital toxoplasmosis] Vrozhdennyi toksoplazmoz.  
IARoslavl', 1962. 117 p. (MIRA 16:6)

1. Yaroslavl'. Meditsinskiy institut.  
(TOXOPLASMOSIS) (HEREDITY OF DISEASE)

POPOV, M. M. (Yaroslavl')

Roentgenological and radiological education should be reorganized immediately. Med. rad. no.12:64-65 '61. (MIRA 15:7)

1. Iz kafedry rentgenologii i radiologii Yaroslavskogo meditsinskogo instituta.

(RADIOLOGY, MEDICAL—STUDY AND TEACHING)

KHONDKARIAN, O.A., prof.; POPOV, M.M., vrach

Hypnosis, suggestion, autosuggestion. Zdorov'e 7 no. 4:6-8 Ap '61.  
(MIRA 14:4)

(HYPNOTISM)

ASHRATOVA, S.K.; POPOV, M.M.; GERCHIKOVA, N.S.

Increasing precision in assembling footwear upper parts. Leg.  
prom.15 no.8:24-25 Ag '55. (MLRA 8:10)  
(Shoe industry)

POPOV, M.M., starshiy inzhener

Shoe factories have to be built according to standard plans.  
Kozh.-obuv.prom. 3 no.6:4-8 Je '61. (MIRA 14:8)

1. Gosudarstvennyy proyektnyy institut No.2.  
(Shoe industry)



POPOV, M.M.[deceased]; TAZETDINOV, F.I.

[Vapor pressure of  $T_2O$ ] Davlenie para  $T_2O$ . Moskva,  
Glav. upr. po ispol'zovaniiu atomnoi energii, 1960. 16 p.  
(MIRA 17:1)

POPOV, M.M.; DOBROVOL'SKAYA, N.S.

Centralize the manufacture of chemical products for the shoe  
industry. Kozh. obuv. prom. 6 no.6:4-5 Je '64.

(MIRA 17:9)

POPOV, M.N.

Introducing the achievements of science and technology into  
industrial production. Biul. tekhn.-ekon. inform. Gos. nauch.-  
issl. inst. nauch. i tekhn. inform. 18 no.2:3-6 F '65.  
(MIRA 18:5)

DAUKAYEVA, R.S.; POPOV, M.N.; VOLCHANSKIY, A.S.

Defoliation in woody plant nurseries and stands. Trudy Inst.  
biol. UFAN SSSR no. 43:183-187 '65 (MIRA 19:1)

1. Institut biologii Bashkirskego gosudarstvennogo universiteta  
i Smolinskiy plodopitomnicheskiy sovkhoz.

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21722

R/009/61/000/003/001/002  
D015/D105

AUTHORS: Popov, M.P., Engineer, Instructor; Deciu, E. D., Engineer, Candidate of Technical Sciences, and Mitrică, I., Engineer

TITLE: Cutting characteristics of some Rumanian high-speed steels

PERIODICAL: Metalurgia și Construcția de Mașini, no. 3, 1961, 212-217

TEXT: The article deals with Rumanian standardized alloy steels used in tool making, and, in the light of recent specified requirements listed under STAS 3611-59, reviews problems and general conditions of domestic high-speed steels by analyzing and computing their cutting characteristics. The Institutul de Mecanică Aplicată "Traian Vuia" ("Traian Vuia" Institute of Applied Mechanics) of the Rumanian Academy conducted experiments on cutting operations using a lathe equipped with Rumanian high-speed-steel cutting-tools which were studied by M. Popov, I. Mitrică and E. Deciu (Ref. 1: Studii asupra parametrilor aşchierii cu cuţite de strung din oţel rapid românesc. Studii şi cercetări de Mecanică Aplicată, X (1959), no. 2, pag. 539-564). The materials used in the tools were RW-180 and RMo-50 high-speed steels both manufactured and sub-

Card 1/ 16

21722

R/009/61/000/003/001/002  
D015/D105

# Cutting characteristics of some Rumanian high-speed steels

jected to heat treatment at the Uzinele "23 August" (Plant) in Bucharest. The RW-180 steel is composed of 0.76% C; 4% Cr; 19% W; 0.15% Mo and 1% V. The RMo-50 steel is a new product of the plant having molybdenum as the main alloying element and consisting of 0.84% C; 4.1% Cr; 5.4% W; 5% Mo and 1.64% V. The tool hardness was 63-65 Rc. The tools were sharpened by subjecting them to a roughing and a finishing operation. Rough grinding was carried out with artificial corundum with a ceramic bond having a J-K hardness and a 36-60 granulation. The finishing was carried out with silicon carbide with a ceramic bond having a K hardness and a 60 granulation. The tools had no groove or chamfer. The experiments with tools from RW-180 and RMo-50 steels were conducted on OL-38 carbide steel according to STAS 500-49 and on 35 MoCN 20 alloy steel. The samples made of OL-38 steel had  $\delta_k = 39-46$  kgf/sq mm. The analysis of 35 MoCN 20 steel samples showed the following composition: 0.36-0.39% C; 0.66-0.67% Mn; 0.70-0.80% Cr; 0.18-0.22% Mo; 1.80-1.90% Ni and  $\delta_r = 67-73$  kgf/sq mm. The experiments were carried out on cutting operation parameters as given by M. Popov, I. Mitrică, E. Deciu (Ref. 2: Aspecte ale cercetării științifice în domeniul

Card 2/16

21722

R/009/61/000/003/001/002

D015/D105

# Cutting characteristics of some Rumanian high-speed steels

aşchierii metalelor în R.P.R., Metalurgia şi Construcţia de Maşini XI, (1959), nr. 10, pag. 875-877). The optimum values of the side rake angles  $\gamma$ ; side clearance angles  $\alpha$ ; front clearance angles  $\delta$ ; secondary adjusting angles  $\chi$ , and back rake angles  $\lambda$  were determined on the basis of geometrical parameters and are given in Table 1. They are also valid for tools made from RW-180 and RMo-50 steels. The numerical values of the relation between cutting speed and tool life were established by the equation

$$vT^n = C_1 \quad (1)$$

where  $v$  is the cutting speed in m/min and  $T$ , tool life in min. The variation of the relation between cutting speeds and tool life when cutting 35MoCN 20 steel with an RW-180 cutter is shown in Fig. 1 and when cutting OL-38 steel with an RMo-50 cutter in Fig. 2. The interpretation of these values shows that the exponent  $n$  is independent of speed, feed and cutting depth. The  $n_{med}$  values given in Table 2 calculated as an average of values obtained under

Card 3/16

21722

R/009/61/000/003/001/002  
D015/D105

Cutting characteristics of some Rumanian high-speed steels

different conditions are used for determining the speed-correction coefficients.  
The economical cutting speed is calculated from the formula

(2)

$$v_T = \frac{C}{t^x \cdot s^y} \cdot K$$

where  $v_T$  is the cutting speed for the economical tool life  $T$  of the cutter in m/min;  $t$ , cutting depth in mm;  $s$ , feed in mm/revolution;  $C$ , constant in relation to the machined material;  $x$  and  $y$ , exponents in relation to the machined material and  $K$ , overall correction coefficient of the speed. The numerical values obtained are shown in Table 3 and are used in Eq. (2) for calculating the economical speed  $v_{60}$  for  $s = 0.1 - 1$  mm/revolution and  $t = 0.5 - 6$  mm.  
The overall correction coefficient of cutting speed is expressed by:

(3)

$$K = K_1 \cdot K_2 \cdot K_3 \cdot K_4 \cdot K_T \cdot K_m \cdot K_v \cdot K_a \cdot K_{a_1} \cdot K_x \cdot K_{x_1} \cdot K_\lambda$$

Card 4/16



21722

R/009/61/000/003/001/002  
D015/D105

# Cutting characteristics of some Rumanian high-speed steels

where  $K_1$  is the correction coefficient in relation to the mechanical properties of the machined material;  $K_2$ , correction coefficient in relation to the cooling system used;  $K_3$ , correction coefficient of the cutter in relation to the sharpening method;  $K_4$ , correction coefficient in relation to the homogeneity of the material, the presence of slag, etc. resulting from cold drawing;  $K_T$ , correction coefficient in relation to the economical tool life;  $K_m$ , correction coefficient in relation to the material of the cutter; and  $K_\gamma$ ,  $K_\alpha$ ,  $K_{\alpha_1}$ ,  $K_\chi$ ,  $K_{\chi_1}$ ,  $K_\lambda$ , correction coefficients in relation to  $\gamma$ ,  $\alpha$ ,  $\alpha_1$ ,  $\chi$ ,  $\chi_1$ , and  $\lambda$  angles. The  $K_1$  value was considered to be 1 for each type of steel used in the experiments. For cutting operations performed without cooling, it was taken that  $K_2=1$ , but  $K_2 > 1$  with cooling. In case of sharpening mentioned above, it was considered that  $K_3 = 1$ ; while with high-quality

Card 5/16

21722

R/009/61/000/003/001/002  
D015/D105

IX

Cutting characteristics of some Rumanian high-speed steels

sharpening,  $K_3 > 1$ . By performing a groove and a chamfer on the main cutting edge, an increase of the economical speed was obtained, i.e.  $K_3 > 1$ . The values of the  $K_T$  coefficient are given in Table 4 and the values of the speed correction coefficients in relation to geometric parameters in Tables 5 to 9. The power required for the cutting process was determined from:

$$N = C_2 t^{x_1} s^{y_1} v^z \quad (4)$$

where N is the cutting power in kW;  $C_2$ , constant in relation to the machined material and other parameters included in K, and  $x_1$ ,  $y_1$ ,  $z$ , exponents in relation to the machined material. Experimental numerical values from this equation are given in Table 10 showing that the values for tools made from the 2 types of high-speed steels, did not differ appreciably. Fig. 7 and 8

Card 6/16

21722  
R/009/61/000/003/001/002  
D015/D105

Cutting characteristics of some Rumanian high-speed steels

show that lathe cutting tools made from RMo-50 steel make for higher economical speeds. A comparative analysis can also be made by using the  $K_m$  coefficient defined as

$$K_m = \frac{v_{60}^{RMo-50}}{v_{60}^{RW-180}} \quad (5)$$

This shows that RW-180 tools are recommended for  $K_m < 1$  and RMo-50 tools for  $K_m > 1$ . The results obtained by the I.M.A. laboratory were confirmed at the industrial level at the "23 August" Plant which tested many types of tools. The results proved that RMo-50 steel is cheaper than RW-180. Therefore, RMo-50 should be used for general purposes, such as lathe cutters, planing cutters, slotting cutters, milling cutters, etc. The RW-180 steel is recommended for tools which produce small chips, such as twist drills, screw-

Card 7/16

21722  
R/009/61/000/003/001/002  
D015/D105

Cutting characteristics of some Rumanian high-speed steels

taps, reamers, formed milling-cutters, etc. The STAS 3611-59 standard also lists high-speed steels with cobalt as the main alloying element. These steels designated as RK-100 and RK-50 should be used for cutting-tools, especially, for cutters used in heavy machining at high speeds and in machining very hard steel. Cutters with steel-cobalt-alloy tips are better than cutters with carbide tips for the range of cutting speeds mentioned. The manufacture of high-speed steel tools should be based on the quality of high-speed steel, on the heat treatment, and the mechanical characteristics of the pieces to be machined. There are 10 figures, 10 tables, and 4 references: 3 Soviet-bloc and 1 non-Soviet-bloc.

Card 8/16

POPOV, M.P.; MITRICA, I.; DECIU, E.D.

Geometry of the cutting tools for the processing to carbon steel.  
Studii cerc mec apl 12 no.6:1357-1378 '61.

POPOV, M. P.; DECIU, E. D.; MITRICA, I.

Transducer for force measurement. Studiul cerc mec  
apl 14 no. 6: 1491-1496 '63.

POPOV, M. P., conf. ing.; DECIU, E. D., cand. st. tehn., ing.;  
MITRICA, I., ing.

Splintering qualities of some Rumanian high-speed steels.  
Metalurgia constr mas 13 no. 3: 212-217 Mr '61.

POPOV, M.P.; MITRICA, I.

Influence of constructive parameters of pumps with cog wheels and pistons on the radial volume losses. Studii cerc mecatr 17 no.5:1257-1269 '64.

1. "Traian Vuia" Institute of Applied Mechanics of the Romanian Academy, Bucharest. Submitted June 10, 1964.



POPOV, M. P., MITRICA, I., DECIU, E. D.

Influence of the angle of relief on the wear of cutting  
tools. Rev mec appl 8 no. 6: 1103-1110 '63.

BUKAL, G. M.; BUKHVOSTOV, A. P.; POPOV, M. P.

"Possible Experiments for the Determination of Pseudoscalar Contributions  
in  $\mu$ -Capture."

report submitted for All-Union Conf on Nuclear Spectroscopy, Tbilisi, 14-22  
Feb 64.

FTI (Physico Technical Inst)

POPOV, M.P.; MITRICA, I.; DECIU, E.D.

Influence of the clearance angle on the wear of cutting tools.  
Studii cerc mec apl 14 no.3:641-649 '63.

POPOV, M.P.; DECIU, E.D.; MITRICA, I.

Optimum economical conditions for the turning of carbon steel.  
Studii cerc mec apl 13 no.4:1001-120 '62.

POPOV, M.P.

Greater use of rolled products with minus tolerances. Metallurg 8  
no.3:29-30 Mr '63. (MIRA 16:3)

1. Nachal'nik otdela tekhnicheskogo kontrolya Luganskogo  
truboprokatnogo zavoda. (Pipe mills)

POPOV, M.P.; DECIU, E.D.; MITRICA, I.

Contributions to the calculation of radial losses in the  
case of fluid upsetting pumps and engines. Studii cere mac  
apl 15 no.2:475-485 '64.

1. Submitted December 19, 1963.

POPOV, M.P.

"Computation and construction of cutting tools" by Ion Lazarescu.  
Reviewed by M. Popov. Studii cerc mecat 13 no.1:247 '62.

POPCV, M. P.; MITRICA, I.; DECIU, E.

Study of the power necessary to the cutting of ordinary carbon steel. Studii cerc mec apl 11 no.6:1481-1495 '60.



BRUSILOVSKIY, D.A.; BULGAKOV, L.N.; GENIS, B.M.; KVARTEN, L.M.;  
KRASOVSKIY, Ye.S.; MIKHAYLOV, D.I.; NATOCHANNYY, A.S.; NIKOL'SKIY,  
V.N.; POPOV, M.P.; SIGODZINSKIY, A.A.; SKOMOROKHIN, A.F.;  
CHASOVNIKOV, G.V.; DERBISHER, A.V., kand. ekon. nauk, red.;  
DULKIN, N.A., spets. red.; BONDAROVSKAYA, G.V., red.; TORSHINA,  
Ye.A., tekhn. red.

[Overall automation and modernization of equipment and production  
processes at the First State Bearing Plant] Kompleksnaia avtoma-  
tizatsiia i modernizatsiia oborudovaniia i protsessov proizvodstva  
na Pervom gosudarstvennom podshipnikovom zavode. Moskva, TSentr.  
biuro tekhn. informatsii, 1959. 84 p. (MIRA 15:1)

1. Russia (1917- R.S.F.S.R.) Moskovskiy gorodskoy ekonomicheskii  
administrativnyy rayon. Sovet narodnogo khozayastva.  
(Moscow--Bearing industry) (Automation)

33741  
R/008/61/000/006/004/005  
D272/D304

14000  
AUTHORS: Popov, M.P., Mitrică, I., and Deciu, E.D.  
TITLE: The geometry of cutting tools for carbon steel processing  
PERIODICAL: Studii si cercetări de mecanică aplicată, no. 6, 1961, 1357 - 1378

TEXT: The problem of the geometry of the turning cutting tool for processing ordinary heat treated carbon steels (STAS 500-49) and heat treated quality carbon steels (STAS 880-49) has been investigated in a series of tests performed at the "Institutul de mecanică aplicată - Traian Vuia" (Institute of Applied Mechanics) - Traian Vuia. The study is based on the evolution of wear with time up to the ceiling of wear  $\delta_{\alpha_1} = 1$  mm on the secondary placing face, the results being presented by means of the correction coefficients of the durability -  $\tau$  - which are dimensionless. The study was concentrated on the main angles of the active part of the turning cutting tool, namely the front rake angle  $\gamma$ , the main and secondary

Card 1/4

33741  
R/008/61/000/006/004/005  
D272/D304

The geometry of cutting tools ...

placing angles  $\alpha$  and  $\alpha_1$ , the main and secondary working angles  $\kappa$  and  $\kappa_1$ , and the inclination angle of the main cutting edge  $\lambda$ . A close relationship was found between the wear and the geometry of the 3 active faces, determining that the optimum contact surfaces which are defined as the initial surfaces corresponding to the optimum angles -- correspond to a distribution of the specific pressures resulting in the slowest destruction of the active faces. The front rake angle was found to depend on the intensity of the deformations originating in the cutting zone of the processed wear; thus a different front rake angle must be chosen for each type of steel processed if an optimum initial contact surface is desired. This is born out by empirical formulas (function of the ultimate tensile strength and function of the Brinell hardness). As the hardness depends on the carbon content it was possible to derive the dependence of the rake angle on the carbon content

$$\gamma = 71.43 \log \frac{0.805}{C + 0.278} \quad (7)$$

Card 2/4

33741

R/008/61/000/006/004/005  
D272/D304

The geometry of cutting tools ...

The latter formula is difficult to employ in practice and, therefore, the use of a table is suggested. Examination of the other cutting tool angles on nine steels of the above-mentioned two categories indicated the following optimum values -  $\alpha = 11^\circ$ ,  $\alpha_1 = 15^\circ$ ,  $\kappa = 45^\circ$ ,  $\kappa_1 = 10^\circ$ ,  $\lambda \approx 0$ . These values do not depend on the nature of the processed material in the case of the steels processed in this study. In the case of the main working angle there is no actual optimum value, as the tool durability is increased with the max. possible decrease of  $\kappa$ , thus choosing the minimum value of  $\kappa$  for each respective profile processed, as well as for each rigidity of the processed item (higher rigidity enables smaller  $\kappa$ ). It was also established that at appropriate hardnesses the material of cutting tool does not affect the optimum angles. At 10-15 HRC units the deformations of the tool do not differ appreciably, and the initial optimum contact surfaces do not modify and the wear will be the slowest, as was demonstrated on a series of metal carbides and mineralo-ceramic materials. In addition to the size of the initial contact surface, its quality was found to have an appreciable effect

Card 3/4

33741

R/008/61/000/006/004/005  
D272/D304

The geometry of cutting tools ...

on the durability of the tool, and fine polishing enabled improved pressure distribution on the contact surfaces, resulting in slower wear. There are 16 figures and 17 Soviet-bloc references. X

Card 4/4

POPOV, M.P.; CHELEYEV, D.A.

Studying lipoxidase in cereal crops in connection with the problem of  
the development of rancidity in groats. Biokhim.zerna no.5:263-279  
'60. (MIRA 14:5)

1. Moskovskiy tekhnologicheskii institut pishchevoy promyshlennosti.  
(Lipoxidase) (Cereal products)

POPOV, M.P.

Surgical treatment of multiple echinococcosis of the lungs. Kaz.  
med. zhur. 41 no.3:32-35 My-Je '60. (MIRA 13:9)

1. Iz kliniki obshchey khirurgii (zav. - prof. A.A. Polyantsev)  
Stalingradskogo meditsinskogo instituta i oblastnoy klinicheskoy  
bol'nitsy (glavvrach - A.I. Gusev).  
(LUNGS—HYDATIDS)

KRETOVICH, V.L.; POPOV, M.P.; CHELEYEV, D.A.

Interaction of lipase and lipoxidase in the process of fat  
oxidation. Izv.vys.ucheb.zav.;pishch.tekh. no.5:23-27 '58.  
(MIRA 11:12)

1. Moskovskiy tekhnologicheskii institut pishchevoy promysh-  
lennosti, kafedra biokhimii i zernovedeniya.  
(Oils and fats, Edible) (Enzymes) (Oxidation)



POPOV, M. P.

Wine and wine making - analysis

Possibility of regulating acidity in wines.. Vin SSSR 12 No. 8, 1952.

9. Monthly List of Russian Accessions, Library of Congress, December 195<sup>2</sup>. Unclassified.

AUTHOR: Popov, M.P.

SOV/130-58-9-20/23

TITLE: On the Organisation of Production Quality Control. The Technical-control Department Inspector as a Productive Worker in the Shop (Ob organizatsii kontrolya kachestva produktsii. Kontroler OTK - proizvodstvennyy rabochiy tsekha)

PERIODICAL: Metallurg, 1958, Nr 9, p 34 (USSR)

ABSTRACT: This is a contribution to the discussion started by the publication in "Metallurg", 1957, Nr 9, of an article by N.P. Inozemtsev, Ya.I. Sokol, I.F. Rysev, D.A. Tarasenko, S.I. Zamyatin on this subject. The author notes that in most Soviet iron and steelworks, the quality-control department staffs have been greatly reduced in the last two years. In the tube-rolling shop of the imeni Yakubovskogo Works, the inspectors do productive work as well as inspecting all tubes and the percentage of rejects has fallen from 0.7-0.8 in January-May to 0.42 in June. The inspectors also work on the hydraulic-test presses, whereas at the Vyksa, Leningradskiy, im. Lenina and im. Andreyeva Works, they merely supervise. After briefly

Card 1/2

SOV/130-58-9-20/23  
On the Organisation of Production Quality Control. The Technical-  
control Department Inspector as a Productive Worker in the Shop

contrasting some other features of quality-control  
organisation at different works, the author mentions that  
at the im. Yakubovskiy Works, all the tube-mill workers are  
paid according to the length of tube produced and tube  
length is increased by reducing to a minimum the diameter  
of the cylindrical part of the funnel. He states that as  
a result of the measures described, the mill is consistently  
exceeding its planned production.

ASSOCIATION: OTK zavoda im. Yakubovskogo (OTK of the Works  
imeni Yakubovskiy)

Card 2/2

1. Industrial production--Quality control
2. Quality control
3. Labor--Performance
4. Industrial plants--Operation

R/008/60/000/004/012/018  
A125/A126

AUTHORS: Popov, M. P., Mitrică, I., and Deciu, E.

TITLE: Wear resistance of cutting tools in function of their geometrical parameters

PERIODICAL: Studii și Cercetări de Mecanică Aplicată, no. 4., 1960, 983 - 995

TEXT: Soviet workers, e.g., Bykov, Berkevich, and Kolesov, have developed excellent cutting tool geometries, matching the requirements of a high-speed cutting process. The chemical composition of the steel is very important for the determination of the machining ability. Starting from the development in the use of a cutting tool, the authors examine and determine the optimum geometric parameters in case of the machining of parts made of conventional, heat-treated carbon steels (STAS 500-59). The obtained relations furnish the connection between the geometrical parameter values and the mechanical characteristics, or, rather, the carbon contents of the steels submitted to the tests. Further, the authors examine the influence of the deviations from the optimum

Card 1/2

Wear resistance of cutting tools ....

R/008/60/000/004/012/018  
A125/A126

geometry on the durability of the tool. There are 6 figures, 4 tables and 6  
Soviet-bloc references.

SUBMITTED: February 26, 1960

Card 2/2

POPOV, M.P.

Supplementary nomenclature of conical fittings. Rats. 1 izobr.  
predl. v stroi. no.6:140-141 '58. (MIRA 11:10)  
(Pipe fittings)

POPOV, M.P., assistant, kand. tekhn. nauk.

Cooking quality of peas and its determining factors. Trudy MTIPP  
no.9:107-119 '57. (MIRA 10:12)

(Peas)

1. POPOV, M. P.
2. USSR (600)
4. Wine and Wine Making - Accounting
7. Regularize accounting for wine materials and must. Vin. SSSR 13, No. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953. Unclassified.



POPOV, M. I.

Dissertation: "Investigation of Resistances in Elements of Hydraulic Systems of Machine Tools." Cand Tech Sci, Moscow Machine Tool and Tool Inst imeni I. V. Stalin, 21 Apr 54. (Vechernyaya Moskva, Moscow, 12 Apr 54)

SO: SUM 243, 19 Oct 1954

YEVDOKIMOV, Yu.I.; KOTENKO, A.F.; POPOV, M.S.

Effect of low temperatures on the antifriction properties of poly-  
caprolactam. Plast.massy no.9:41-43 '64. (MIRA 17:10)

ABLOV, A.V.; SAMUS', N.M.; POPOV, M.S.

Isorhodanonitro- and isorhodanohalogeno-bis-dimethyl-glyoxime-  
cobaltic acids. Dokl.AN SSSR 106 no.4:665-668 F '56.(MLRA 9:6)

1.Kishinevskiy gosudarstvennyy universitet. Predstavleno akade-  
mikom I.N.Nazarovym.

(Cobalt compounds)

AID P - 3076

Subject : USSR/Electricity

Card 1/1 Pub. 29 - 10/29

Author : Popov, M. S., Eng.

Title : Utilization of exhaust steam for the accumulation of hot water at the plant

Periodical : Energetik, 7, 16-17, J1 1955

Abstract : The author describes an arrangement developed at a plant to utilize exhaust steam for heating water for the needs of the personnel and also for preheating chemically treated feed-water. A complete utilization of exhaust steam was obtained by establishing accumulators of hot water. One diagram.

Institution : None

Submitted : No date

POPOV, M.S.

Pneumatic drive for raising and turning the table in finishing  
cabinet-type furniture. Sbor.vnedr.rats.pred. v les. i meb.prom.  
no.2:95-97 '59. (MIRA 13:8)

1. Stalingradskiy lesopil'no-derevoobrabatyvayushchiy kombinat.  
(Furniture industry--Equipment and supplies)  
(Pneumatic machinery)

27

Co

Hydrogenation (of oils) with nickel carbonate catalyst without a carrier. M. S. Popov. *Mashobolno Zhirovos Delo* 12, 497-9(1936).—Continuous hydrogenation of cottonseed oil at 207° in the presence of  $\text{NiCO}_3$  (without a carrier) gave a fat mixt., m. 51°. Methods of prep. the catalyst are described. Chas. Blanc

ASD-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND DEGREE		PROCESSING AND PROPERTIES INDEX	
A comparison of methods for purifying nickel sulfate solutions. E. Ya. Eisenberg and M. G. Litvinova. <i>Novos S Protsessy Hlorometallizatsii Zhirnykh Vlastoyz. Naisk. Institutel. Inst. Khim. 1959. 74 RI; Khim. Referat. Zhur. 1960. No. 3, 120.</i>		Various methods of purifying NiSO <sub>4</sub> solns. obtained by boiling used Ni catalyst with H <sub>2</sub> SO <sub>4</sub> were investigated. NiSO <sub>4</sub> solns. can be purified either with NaClO (oxidation of the lower oxides of Fe to higher oxides) or by blowing with air, in the presence of Na <sub>2</sub> CO <sub>3</sub> (removal of Fe). To carry out the first method: Neutralize the NiSO <sub>4</sub> solns. with Na <sub>2</sub> CO <sub>3</sub> , treat with NaClO soln. to complete oxidation of Fe and add Na <sub>2</sub> CO <sub>3</sub> to resln. to reduce to 1.0-1.5% (dry basis) by washing. The method involving blowing with air has the disadvantages of only about 70% removal of Fe, the requirement of a large excess of Na <sub>2</sub> CO <sub>3</sub> (100%), and a considerable Ni loss in the residue (up to 15%), which required treatment with H <sub>2</sub> SO <sub>4</sub> . W. R. Henn	

POPOV, M.S.,  
BOTKOVSKAYA, E.I., (No Journal)



POPOV, M. S.

MARTYNOVSKIY, D. M. and POPOV, M. S. Use of Exhaust Steam from Forging Hammers for Heating Chemically Treated Boiler Feedwater at an Industrial Heat-and-Power Plant (Podogrev Khimicheskoi Ochishchennoy Vody dlya Kotlov Promyshlennoy TETs Otrabotavshim Parom Molotov Kuznitsi), pp. 4-6

A theoretical study of the heat balance and water circulation in a feedwater loop. (Diagram, formulae and graph).

SO: PROMYSHLENNAYA ENERGETIKA, No. 11, Nov. 1952, Moscow (1613006)

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

Isothiocyanonitro-7 and isothiocyanoheterochalid-  
methylglycine acids. *Ann. N.Y. Acad. Sci.* 1960  
115: 100-101. *Proc. Acad. Sci. Phila.* 1960, 100.  
115: 100-101. *Proc. Acad. Sci. Phila.* 1960, 100.

ACCESSION NR: AP4045024

S/0191/64/000/009/0041/0043

AUTHOR: Yevdokimov, Yu. A., Kotenko, A. F., Popov, M. S.

TITLE: The effect of low temperature on the antifriction properties of polycaprolactam

SOURCE: Plasticheskiye massy\*, no. 9, 1964, 41-43

TOPIC TAGS: polycaprolactam, polyamide, friction, abrasion, lubricant, low temperature lubrication, Kapron

ABSTRACT: Since the antifriction properties of polyamides at low temperature have not been investigated thoroughly so far, the abrasion and the coefficients of friction of Kapron on steel, with and without lubricants, were investigated at 20-25C without preliminary cooling of the samples, at 20-25C with preliminary cooling at -50C for 10 and 20 days, and at -50C, first under a constant specific pressure of 30 kgs/cm<sup>2</sup>, at different rates of abrasion (0.25, 0.5, 0.99 and 1.95 m/sec.) and then at a constant abrasion speed of 0.5 m/sec. and different pressures: 10, 30, 50 and 75 kgs/cm<sup>2</sup>. Cylindrical polycaprolactam and bronze samples were used. A steel disk was used as the abradant. The investigations were carried out on a lathe equipped with a device which permitted adjustment of the load and temperature required for the sample and the setting of the moment of friction. The tester is illustrated. The experiment took 60 min. at room temperature and 20 min.

Card 1/3

ACCESSION NR: AP4045024

at -50C. The length of the abrasion path varied from 500-7000 mm, depending on the time and rate of abrasion. The samples were washed carefully in alcohol, dried at +60C and weighed, the difference in weight being a measure of the degree of abrasion. It was found that the surface of the samples shows cracks after prolonged cooling. The dependence of the degree of abrasion and coefficient of friction on the rate of abrasion and pressure is plotted. It is concluded that the friction of Kapron on a steel disk with a lubricant at positive temperatures results in slight abrasion in all cases. The same was observed for the abrasion of bronze on steel. On abrading Kapron with steel without a lubricant at positive temperatures, the abrasion was slightly higher than that with a lubricant. The abrasion of bronze samples with a lubricant was high compared to the abrasion of Kapron without a lubricant or that of bronze with a lubricant. On abrading Kapron with steel with and without a lubricant at low temperature ( - 50 C), the abrasion values and coefficients of friction differed only slightly from one another and approached the values obtained at positive temperatures. After maintaining Kapron samples at a low temperature (-50C) for 10 or 20 days, their antifriction properties decreased (the coefficient of friction and abrasion increased), but the antifriction properties of bronze remained almost unchanged. Orig. art. has: 5 figures.

2/3

Cord

ACCESSION NR: AP4045024

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: MT, FP

NO REF SOV: 006

OTHER: 000

Card

3/3

KONUNOVA, TS.B.; POPOV, M.S.

Extraction of zirconium with fatty acids. Uch.zap.Kish.un.  
68:94-96 '63 [cover '64]. (MIRA 18:12)

POLOV, N. P.

"Technological and Biochemical Characteristics of the Principal types of Peas." Cand Tech Sci, Moscow Technological Inst of the Food Industry, Moscow, 1953. (MZhBiol, No 1, Sep 54.)

SU: Sum 422, 29 Mar 55



SHEVAKIN, Yu.F.; POPOV, M.V.; SEYDALIYEV, F.S.; ODINTSOV, B.P.

Investigating strains in the connecting rods of cold pipe rolling mills  
with counterweight balancing. Izv. vys. ucheb. zav.; shern. met. 8 no.7:  
124-127 '65. (MIRA 18:7)

1. Moskovskiy institut stali i splavov i Ukrainskiy nauchno-issledovatel'-  
skiy trubnyy institut.

POPOV, M.V., inzh.

Large-block assembly of industrial thermal electric plants.  
Mont. i spets. rab. v stroi. 24 no.10:9-12 '62. (MIRA 15:10)

1. Trest S entrostroyenergomontazh.  
(Electric power plants)

ALANIA, I.F.; POPOV, M.V.

Nova Herculis 1963. Biul. Abast. astrofiz. obser. 32:41-51 '65.  
(MIRA 18:10)

POPOV, M. V.

The Symmetry Theorem. Elektrotehnika (Electrical Engineering), #4:156: Apr 55

DEMIDOV, P.G.; POFOV, M.V.

Time and characteristics of the molting of the white hare in Yakutia.  
Nauch. soob. IAFAN SSSR no.5:95-99 '61. (MIRA 14:12)  
(Yakutia--Hares) (Fur)

POLOV, M. V.

"Investigation of Drying Capillary-Porous Bodies  
With Infrared Rays." Thesis for degree of Cand.  
Technical Sci. Sub 15 Jun 49, Moscow Technological  
Inst of Food Industry.

■ Summary 82, 18 Dec 52, Dissertations Presented  
For Degrees in Science and Engineering in Moscow in  
1949. From Vechernyaya Moskva, Jan-Dec 1949.

11754, 111-6

BYKOV, V.T.; POPOV, M.V.

On the road of steady progress; in the Academy of Sciences of the  
Korean People's Democratic Republic. Vest. AN SSSR [27] no.10:144-148  
O '57. (MIRA 10:10)

(Korea, North--Research)

*Popov, M. V.*  
AUTHORS: Bykov, V. T., Popov, M. V.

30-10-24/26

TITLE: On the Road of **Steady Progress**  
gressa) (Na puti neuklonnogo pro-

PERIODICAL: Vestnik AN SSSR, 1957, Nr 10, pp. 144-148 (USSR)

ABSTRACT: Special importance should be attached to the foundation of the **Korean AS** in 1952, thus at a moment when the Korean people fought a heroic struggle against the invaders. The authors of this report were in a position to follow the activity of the Korean AS throughout a longer period. Their impressions are as follows: Formerly there was neither a university, nor a research institute in Northern Korea. Today there are one university, 16 pedagogical institutes, and 80 technical colleges. The **AS** which is at the head of all these institutions, is charged to direct the scientific studies in such a way as to enable them to supply as many practical results for the national economy as possible. The **AS** has at present 10 regular members and 15 corresponding members. Research institutes of the following branches belong to the **AS**: **physico**-mathematical, chemical, technical sciences, medicine and pharmacology, history, economy and justice, archeology and ethnography, linguistics and literature. Moreover, there is a

Card 1/2



On the Road of **Steady Progress**

(From the AN of the Corea

30-10-24/26

biological laboratory, a scientific central library, a publishing enterprise and a combinat for the manufacture of instruments attached. The results of the research works was quite important and the following amongst them are worth-mentioning in particular: Manufacture of synthetic fibre on the basis of acetylene which is obtained from **domestic** minerals, as well as the construction of a particularly reliable machine for planting rice. In the historical field the composition of a "Korean History" should be mentioned especially. Besides, a number of periodicals is issued **which contain** not only treatises, but to a large extent also foreign reports, particularly from the USSR and China. Since the libraries were almost completely **destroyed** during the war, great attention is paid at present **to** procure the necessary scientific literature and the funds required are made available.

**ASSOCIATION:** Academy of Sciences of the Korean People's Democratic Republic

**AVAILABLE:** Library of Congress

Card 2/2



L 54725-65 EWT(m)/EWP(w)/EWA(u)/T/EWP(t)/EWP(k)/EWP(b)/EWA(c) Pf-4 JD/HW  
ACCESSION NR: AP5013323 UR/0148/65/000/005/0082/0084  
621.774.35:539.43:620.17 24  
23  
8

AUTHOR: Shevakin, Yu. F.; Popov, M. V.; Seydaliyev, F. S.

TITLE: The influence of an alternating stress scheme on the mechanical properties of metal

SOURCE: IVUZ. Chernaya metallurgiya, no. 5, 1965, 82-84

TOPIC TAGS: pipe manufacture, stress analysis, metal mechanical property

ABSTRACT: The authors have investigated the condition of stress of a particular tube rolling process and the resulting mechanical properties of specimens cut from positions on the tube circumference. One and two rotations of the tube after the second pass is seen to lower the tensile strength (7-14%) and yield strength (10-15%) while practically not changing the ductility properties. Substantial improvements in mechanical properties as compared with sheet rolling and upsetting processes with equivalent deformation were noticed. Differences in properties about the perimeter are accounted for by the unequal reduction in cross section during rolling. From the dynamics of cold rolling of tubes, areas in tension before the

Card 1/2

L 54725-65  
ACCESSION NR: AP5013323

reverse pass become areas of compression after billet reversal and vice versa. Cold rolling of tube can thus be regarded as deformation under a scheme of alternating stress, the residual stress from one cycle adding algebraically to the stress necessary for the next cycle. Since the residual stress from the previous cycle is of opposite sign it lowers the energy requirements for the present cycle. Orig. art. has: 2 figures, 2 tables.

ASSOCIATION: Moskovskiy institut stali i splavov (Moscow Institute of Steel and Alloys)

SUBMITTED: 11Sep64

ENCL: 00

SUB CODE: MM, A5

NO REF SOV: 007

OTHER: 000

Card 2/2

L 48263-65 EEO-2/FSS-2/EWT(1)/EWA(d)/EWA/EED-2/FCS(k)

AM5012699

BOOK EXPLOITATION

UR/ 19  
B+1

Popov, Mark Vasil'yevich (Colonel, Candidate of Philosophical Sciences)

The substance of laws governing armed warfare (Sushchnost' zakonov vooruzhennoy bor'by) Moscow, Voenizdat M-va obor. SSSR, 64. 0133 p. 7,000 copies printed.

TOPIC TAGS: military operation, military policy, psychologic stress, armed warfare

PURPOSE AND COVERAGE: Colonel M. V. Popov's book is dedicated to one of the most important theoretical problems of military science. The book is a short essay on the development of views concerning determinism in armed warfare in the history of military thought. The book reveals the substance of the laws of armed warfare and the character of their activity and peculiarity. It sheds light on the problem of the dialectics of the objective and the subjective in armed warfare, and the relation of laws and the conscious activity of people in war. Problems concerning the fundamental law of war, the distinction between laws and the state of being conditioned by the objective laws of armed warfare, and the distinction between the laws of military science and the principles of the military art are problematic and express the personal point of view of the author. The book is intended for officers, generals and admirals of the Soviet Armed Forces. It is also directed to all who are interested in the philosophical problems of contemporary war and

Card 1/2

L 48263-65

AM5012699

military science.

TABLE OF CONTENTS (abridged):

Preface - - 3

Ch. 1. Development of views on the laws of armed warfare in the history of military thought - - 5

Ch. 2. Laws of armed warfare which express its contingency on politics and economics - - 37

Ch. 3. Laws of armed warfare as a single two-sided process of the armed forces' combat activity - - 69

Ch. 4. Relation of laws and the conscious activity of people in armed conflict - - 99

Epilogue - - 128

SUB CODE: MS

SUBMITTED: 04Nov64

NO REF SOV: 085

OTHER: 007

TP  
Card 2/2

POPOV, M.V. (Karachev)

Béout thsorem and solution of probelms. Mat.v shkole no.1:67  
Ja-F '60. (MIRA 13:5)  
(Algebra--Problems, exercises, etc.)

POPOV, M.V., Cond Bio Sci—(dis) <sup>Food</sup> "Nutrition conditions and nutri-  
tion of white hare in Yakutiya in connection with the dynamics of  
their proliferation." Len, 1958. 19 pp (Mos State Pedag Inst  
in V.I. Lenin), 140 copies (IL,22-58,136)



SOV/91-59-10-4/29

14(6)

AUTHOR: Popov M.V. Engineer

TITLE: Assembly of Boilers with Large Blocks Without Crane of Large Hoisting Capacity

PERIODICAL: Energetik, 1959, Nr. 10, pp 11-13, (USSR)

ABSTRACT: In the boiler-house TETs, it was necessary to install two boilers of the firm Bruyon, each 20-24 t/hour capacity, and two boilers TS-20 and BM-35. At the beginning of the mounting, the foundation pit had no boarding yet. For installation of boiler frame-work blocks there were only two 5-ton electric winches, a tractor and a 3-ton crane with a 22 m derrick available. To secure mechanization of the hoisting work, the crane was placed on the ground lying by the side of the foundation pit which permitted delivering of blocks up to 3 tons from the assembly ground to any section where boilers had to be mounted. Transportation of heavier blocks was accomplished by a caterpillar-tractor. The frame-work block (wall), 17 tons in weight, consists of two side-columns and three cross-beams. The bases of frame-work columns are laid

Card 1/3

SOV/91-59-10-4/29

Assembly of Boilers with Large Blocks without Crane of Large  
Hoisting Capacity

on the boiler seat. To the base support of each column a pivot, 8 cm in diameter, is welded; its ends enter into openings made in two beams which are concreted in foundation slab. In this way, a hingejoint is created (Fig. 1). To facilitate the hoisting, the frame-work block was assembled on ties in a tilted position (Fig. 2). To install the block, a 10 m mast was mounted by means of an auto-crane in the middle between the frame-work columns. On the top and the bottom of the mast there are mounted pulleys. A steel-rope from a 5-ton electric winch was passed through the pulleys, and the block was fastened to it. Thereafter, the block was turned by the winch and placed in a vertical position. In the same way, the mounting of another block of the frame-work wall was performed. On the basis of the above experience, the author draws the following conclusions: 1) Absence of powerful cranes should not hinder assembly by the method of block assembling; 2) A portal crane can be used for hoisting,

Card 2/3

SOV/91-59-10-4/29

Assembly of Boilers with Large Blocks without Crane of Large  
Hoisting Capacity

provided it will be located by the side of the foundation pit; 3) Assembling boiler frame-work side walls in a horizontal position permits, in some cases, their installation by means of a mast and an electric winch. There are 4 diagrams.

Card 3/3

*Popov, M.V.*

AID P - 885

Subject : USSR/Engineering

Card 1/1 Pub. 29 - 18/23

Authors : Ivanov, I. T., Kand. of Tech. Sci. and Popov, M. V., Eng.

Title : Adjusting of boilers of the "Riley" Company

Periodical : Energetik, 10, 27-32, 0 1954

Abstract : The "Riley" boilers installed in several power stations have developed several substantial deficiencies, most important of which is faulty circulation in the boiler, which leads to damage to the piping. The authors describe the measures applied to correct deficiencies. Seven drawings.

Institution : Not given

Submitted : No date

POPOV, M.V.

AID P - 3352

Subject : USSR/Electricity  
Card 1/1 Pub. 29 - 10/27  
Author : Popov, M. V., Eng.  
Title : Flexible plastic coupling for low capacity turbo-  
generators  
Periodical : Energetik, 9, 20-22, S 1955  
Abstract : The author describes a flexible coupling for low  
capacity turbogenerators which **serves** to connect the  
generator with the turbine. This is easier to mount  
and simpler in operation than rigid couplings. The  
author describes the installation of a flexible  
coupling to connect a Vumag turbine with a 800-kw  
Thompson Houston generator. One photograph, 3  
drawings.  
Institution : None  
Submitted : No date

POPOV, M.V.

Migration of Yakutian hare. Nauch.sooch. IAFAN SSSR no.2:73-78 '59.  
(MIRA 16:3)

(Yakutia--Hares) (Animals, Migration of)

POPOV, M.V., inzhener.

~~Evaporative~~ evaporative cooling system for diesel and compressor installations.

Energetik 4 no.10:20-22 0 '56.

(MLRA 9:11)

(Diesel engines--Cooling)

(Compressors--Cooling)

POPCV, M.V., inzh.

Mechanized pipe expansion. Mnt. i spets. rab. v stroi. 24  
no.5:22-24 My '62. (MIPA 15:5)

1. Vsesoyuznyy trest po montazhu energooborudovaniya Glavstroymasha  
Ministerstva promyshlennosti stroitel'nykh materialov SSSR.  
(Pneumatic tools)  
(Boilers)



POPOV, M. Ya.

Some indications for determining sedimentary formations of the  
eastern margin of the Aldan Shield. Trudy VAGT no. 7:121-126  
'61. (MIRA 14:7)

(Aldan Shield—Rocks, Sedimentary)

POPGV, M.V., otv. red.

[Vertebrates of Yakutia; materials on their ecology and  
number] Pozvonocchnye zhivotnye IAKutii: materialy po eko-  
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